

AQUEOUS INK FOR INK JET RECORDING

Patent Number: JP11061017
Publication date: 1999-03-05
Inventor(s): TSUTSUMI TAKEHIRO; AZUMA AKISHI; SAWADA MICHITAKA
Applicant(s):: KAO CORP
Requested Patent: JP11061017
Application Number: JP19970221337 19970818
Priority Number(s):
IPC Classification: C09D11/00 ; B41M5/00
EC Classification:
Equivalents:

Abstract

PROBLEM TO BE SOLVED: To obtain an ink with excellent water resistance by compounding an aqueous dispersion of a vinyl polymer obtained by copolymerization of a silicone macromer, etc., with a hydrophobic dye encapsulated in a dispersed particle and adjusting the viscosity and the surface tension each within a specific range.

SOLUTION: There is provided an aqueous recording ink comprising an aqueous dispersion of a vinyl polymer with a hydrophobic dye encapsulated therein and having its viscosity and surface tension at 20 deg.C adjusted to 0.5-5 cp and 20-60 dyne/cm, respectively. The vinyl polymer is a compound with a wt. average mol.wt. of 3,000-50,000 represented by formula I, for example, and is obtained by copolymerizing a silicone macromer represented by formula II with an acrylamide- or methacrylamide-type monomer, a polymerizable unsaturated monomer having a salt-forming group such as vinylpyridine and another copolymerizable monomer such as methyl methacrylate in the presence of a radical polymerization initiator. In the formulae, X represents a polymerizable unsaturated group; Y represents a divalent linking group; R represents H, a lower alkyl group or the like; Z represents a monovalent siloxane polymer moiety; n represents 0 or 1; and m represents an integer of 1-3.

Data supplied from the esp@cenet database - I2